

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-36 (Cancelled)

37. (Currently Amended) A process for producing a modified electrolyte comprising:
contacting a solid polymer electrolyte or a precursor thereof with an amine compound;

separation of the amine-contacted solid polymer electrolyte or precursor thereof from the amine compound, followed by; and

heating the resulting amine-contacted solid polymer electrolyte or precursor thereof at a temperature of from 40 to 200°C.

38. (Cancelled)

39. (Previously Presented) The process for producing the modified electrolyte according to claim 37, wherein the solid polymer electrolyte is a perfluoro polymeric electrolyte.

40. (Previously Presented) The process for producing the modified electrolyte according to claim 37, wherein the amine compound has a diffusion rate in the solid polymer electrolyte or the precursor thereof which is higher than the reaction rate with the solid polymer electrolyte or the precursor thereof.

41. (Previously Presented) The process for producing the modified electrolyte according to claim 37, wherein the amine compound is at least one compound selected from the group consisting of ammonia, alkali metal bis(trimethylsilyl)amide, sodium amide, 1-hexylamine, ethylamine, propylamine, butylamine, pentylamine, heptylamine, nonylamine,

decylamine, perfluoromethylamine, perfluoroethylamine, perfluorobutylamine, perfluoropentylamine and perfluoroheptylamine.

42. (Previously Presented) A modified electrolyte obtained using the process according to claim 37.

43. (Previously Presented) An electrochemical device using the modified electrolyte according to claim 42.

44. (Previously Presented) A solid polymer electrolyte fuel cell using the modified electrolyte according to claim 42.

45. (Currently Amended) A process for producing a modified electrolyte comprising:

contacting a solid polymer electrolyte or a precursor thereof with an amine compound;

separation of the amine-contacted solid polymer electrolyte or precursor thereof from the amine compound, followed by; and

contacting the resulting amine contacted solid polymer electrolyte or precursor thereof, with a base.

46. (Previously Presented) The process for producing the modified electrolyte according to claim 45, wherein the base is at least one compound selected from the group consisting of:

trimethylamine, triethylamine, pyridine, DBU (1,8-diazabicyclo[5.4.0]-7-undecane) and DBN (1,5-diazabicyclo[4.3.0]non-5-ene);

sodium hydroxide, lithium hydroxide, calcium hydroxide, aluminum hydroxide, potassium hydroxide, sodium carbonate, potassium carbonate, sodium hydrogencarbonate and sodium alkoxide;

sodium hydride, potassium hydride, calcium hydride, lithium aluminum hydride, sodium borohydride; and

butyl lithium, sodium cyclopentadienide and phenyl lithium.

47. (Previously Presented) The process for producing the modified electrolyte according to claim 45, wherein the solid polymer electrolyte is a perfluoro polymeric electrolyte.

48. (Previously Presented) The process for producing the modified electrolyte according to claim 45, wherein the amine compound has a diffusion rate in the solid polymer electrolyte or the precursor thereof which is higher than the reaction rate with the solid polymer electrolyte or the precursor thereof.

49. (Previously Presented) The process for producing the modified electrolyte according to claim 45, wherein the amine compound is at least one compound selected from the group consisting of ammonia, alkali metal bis(trimethylsilyl)amide, sodium amide, 1-hexylamine, ethylamine, propylamine, butylamine, pentylamine, heptylamine, nonylamine, decylamine, perfluoromethylamine, perfluoroethylamine, perfluorobutylamine, perfluoropentylamine and perfluoroheptylamine.

50. (Previously Presented) A modified electrolyte obtained using the process according to claim 45.

51. (Previously Presented) An electrochemical device using the modified electrolyte according to claim 50.

52. (Previously Presented) A solid polymer electrolyte fuel cell using the modified electrolyte according to claim 50.

53. (Currently Amended) A process for producing a modified electrolyte comprising:
contacting a solid polymer electrolyte or a precursor thereof with an amine compound;

separation of the amine-contacted solid polymer electrolyte or precursor thereof from the amine compound, followed by;

heating the amine-contacted solid polymer electrolyte or precursor thereof at a temperature of from 40 to 200°C; and

contacting the amine-contacted solid polymer electrolyte or precursor thereof, with a base.

54. (Cancelled)

55. (Previously Presented) The process for producing the modified electrolyte according to claim 53, wherein the solid polymer electrolyte is a perfluoro polymeric electrolyte.

56. (Previously Presented) The process for producing the modified electrolyte according to claim 53, wherein the amine compound has a diffusion rate in the solid polymer electrolyte or the precursor thereof which is higher than the reaction rate with the solid polymer electrolyte or the precursor thereof.

57. (Previously Presented) The process for producing the modified electrolyte according to claim 53, wherein the amine compound is at least one compound selected from the group consisting of ammonia, alkali metal bis(trimethylsilyl)amide, sodium amide, 1-hexylamine, ethylamine, propylamine, butylamine, pentylamine, heptylamine, nonylamine, decylamine, perfluoromethylamine, perfluoroethylamine, perfluorobutylamine, perfluoropentylamine and perfluoroheptylamine.

58. (Previously Presented) The process for producing the modified electrolyte according to claim 53, wherein the base is at least one compound selected from the group consisting of:

trimethylamine, triethylamine, pyridine, DBU (1,8-diazabicyclo[5.4.0]-7-undecane) and DBN (1,5-diazabicyclo[4.3.0]non-5-ene);

sodium hydroxide, lithium hydroxide, calcium hydroxide, aluminum hydroxide, potassium hydroxide, sodium carbonate, potassium carbonate, sodium hydrogencarbonate and sodium alkoxide;

sodium hydride, potassium hydride, calcium hydride, lithium aluminum hydride, sodium borohydride; and

butyl lithium, sodium cyclopentadienide and phenyl lithium.

59. (Previously Presented) The process for producing the modified electrolyte according to claim 53, wherein said heating step is performed before said step of contacting with a base.

60. (Previously Presented) The process for producing the modified electrolyte according to claim 53, wherein said step of contacting with a base is performed before said heating step.

61. (Previously Presented) A modified electrolyte obtained using the process according to claim 53.

62. (Previously Presented) An electrochemical device using the modified electrolyte according to claim 61.

63. (Previously Presented) A solid polymer electrolyte fuel cell using the modified electrolyte according to claim 61.

64. (New) The process for producing the modified electrolyte according to claim 39, wherein the perfluoro polymeric electrolyte has at least one electrolyte group or electrolyte group precursor selected from the group consisting of $-\text{SO}_3\text{H}$ and $-\text{SO}_2\text{F}$.

65. (New) The process for producing the modified electrolyte according to claim 47, wherein the perfluoro polymeric electrolyte has at least one electrolyte group or electrolyte group precursor selected from the group consisting of $-\text{SO}_3\text{H}$ and $-\text{SO}_2\text{F}$.

66. (New) The process for producing the modified electrolyte according to claim 55, wherein the perfluoro polymeric electrolyte has at least one electrolyte group or electrolyte group precursor selected from the group consisting of $-\text{SO}_3\text{H}$ and $-\text{SO}_2\text{F}$.